

## **REMARKS**

The Examiner is thanked for the thorough examination of the present application. The Office Action, however, has tentatively rejected all examined claims 1-8. In response, claim 3 has been cancelled. Claims 1-2, 4-5, and 7 have been amended to overcome the rejections under 35 U.S.C. 102 (b) and 103(a). Claims 25-30 are newly added. The newly added and amended claims are supported by the original application, including FIGS. 2, 3A, and 3B, and the description on pages 10 to 16. Accordingly, no new matter has been added to the application by these amendments. The amendments render the rejections moot. Notwithstanding, Applicant sets forth the following additional distinguishing remarks.

Instant claims 1-2, 4-8, and 25-30 are currently pending in the present application. Applicant respectfully requests reconsideration of instant claims 1-2, 4-8, and 25-30. Applicant submits that instant claims 1-2, 4-8, and 25-30 are clearly in condition for allowance, as will be discussed herein below. The remarks of the instant response further clarify and distinguish Applicant's claimed embodiments over the cited art and the various grounds of rejection and supporting reasoning presented in the non-final Office Action.

The non-final Office Action cited the following references in support of the rejections:

- A. U.S. Patent 5,355,320 by Erjavic et al., entitled SYSTEM FOR CONTROLLING AN INTEGRATED PRODUCT PROCESS FOR SEMICONDUCTOR WAFERS AND PACKAGES (referred to as "Erjavic" hereinafter).
- B. U.S. Patent 6,778,879 by Chang et al., entitled AUTOMATED MATERIAL HANDLING SYSTEM AND METHOD OF USE (referred to as "Chang")

hereinafter).

C. U.S. Patent 6,392,403 by Conboy et al., entitled INTEGRATED WAFER STOCKER AND SORTER APPARATUS (referred to as “Conboy” hereinafter).

D. U.S. Patent 7,117,063 by Beffa, entitled SORTING A GROUP OF INTEGRATED CIRCUIT DEVICES FOR THOSE DEVICES REQUIRING SPECIAL TESTING (referred to as “Beffa” hereinafter).

Original claims 1-3 and 5-7 stand rejected under 35 U.S.C. 102(b) as allegedly anticipated by Erjavic. Original claims 1-8 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Erjavic in view of Chang. Original claims 1-8 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Erjavic in view of Conboy. Original claims 1-8 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Erjavic in view of Beffa. Applicant respectfully requests reconsideration of these rejections for at least the following reasons.

Under 35 U.S.C. 103(c), subject matter developed by another person, which is prior art under subsections 35 U.S.C 102(e), (f) and (g), shall not preclude patentability under 35 U.S.C. 103 where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an assignment to the same person. U.S. Patent 6,778,879 is owned by Taiwan Semiconductor Manufacturing Corporation, which is also the assignee of the present application, and at the time the invention of the present application was made, the inventors were under an obligation to assign this invention to Taiwan Semiconductor Manufacturing Corporation. Accordingly, Applicant submits that Chang is disqualified as prior art under 35 U.S.C. 103(a) and requests that the rejections of claims 1-8, based on Chang, be withdrawn.

For at least this reason, the arguments in connection with these claims over Chang are considered moot and will not be further addressed here.

Regarding to the amended claim 1, claim 1 (as amended herein) recites:

1. A system of automated sorter operation for held or banked wafer lots, comprising:
  - a storage device capable of storing information regarding a current status of a wafer lot, the current status indicating the wafer lot is on hold, in production bank, or in non-production bank; and
  - a sorting module receiving a wafer lot identity, acquiring detecting the current status corresponding to of the wafer lot identity from the process record storage device, issuing **[[a]]**at least one first status setting instruction corresponding to instructions according to the current status of the wafer lot to a manufacturing execution system (MES) to release the wafer lot, **issuing a flow instruction with sorting recipes directing the MES to perform a sorter operation after issuing the at least one first status setting instruction, and issuing at least one second status setting instruction corresponding to instructions according to the current status of the wafer lot to the MES to hold or bank the wafer lot again after completing the sorting operation,**  
**wherein the at least one second status setting instruction describes a reverse procedure of a status change procedure described by the at least one first status setting instruction, and the wafer lot cannot be processed when the wafer lot is on hold in production bank, or in non-production bank.**

(*Emphasis added.*) Claim 1 patently defines over the cited art for at least the reason that the cited art fails to disclose at least the features emphasized above.

Applicant traverses the rejection for at least the reason that Erjavic, Conboy, and Beffa are completely silent as to a sorting module issuing one or a series of first status setting instructions to a manufacturing execution system (MES) to release a wafer lot

when the wafer lot is on hold, in production bank, or in non-production bank, where the wafer lot cannot be processed when the wafer lot is on hold, in production bank, or in non-production bank (emphasis added). Erjavic, Conboy, and Beffa are completely silent issuing a flow instruction with sorting recipes directing the MES to perform a sorter operation after issuing the first status setting instruction or instructions. And further, Erjavic, Conboy, and Beffa are completely silent as to a sorting module issuing at least one second status setting instruction instructions to the MES to hold or bank the wafer lot again after completing a sorting operation, where the at least one second status setting instruction describe a reverse procedure of a status change procedure described by the at least one first status setting instruction. For at least these reasons, claim 1 defines over this art, and the rejections of claim 1 should be withdrawn.

For at least the reasons stated above, Lin does not teach or suggest all the limitations of instant claim 1 of the present application. Therefore, claim 1 is allowable over the cited reference. Insofar as all claims depend from instant claim 1, these claims are also in condition for allowance.

### ***CONCLUSION***

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that election/restriction requirement has been satisfied without traverse. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

No fee is believed to be due in connection with this submission. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

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